MEMORANDUM

November 23, 2015

To: Utah Board of Oil Gas and Mining

From: Steve Alder,
Assistant Attorney General

Re: December 9, 2015 Board Hearing Memorandum
In the Matter of Crescent Point Energy Docket No. 2015-026, Cause No. 131-141

I. Overview of spacing: cases, statute and rules.

The Utah Oil and Gas Conservation Act defines correlative rights as the "opportunity of each owner in a pool to produce his just and equitable share of the oil and gas in the pool without waste." Utah Code § 40-6-2(2). The Utah Supreme Court has ruled that correlative rights do not "give a mineral interest owner an absolute right to all the oil or gas under one's land." *Cowling v. Board of Oil, Gas and Mining*, 830 P.2d 220, 225 (1991). Rather, the right protected by the Act is an "opportunity to produce a just and equitable share of oil and gas without waste". *Hegarty v. Board of Oil, Gas and Mining*, 57 P.3d 1042 , 1050 (2002).(Internal quotation marks omitted) This "opportunity" is protected by authorizing "the Board to limit a landowners right to drill as many wells and in whatever locations on its land as the landowner chooses." *Cowling* at 225. "Once the Board fixes the size of the drilling units in a field, 'the drilling of any well into the pool at a location other than authorized by the order is prohibited.' Utah Code § 40-6-6(4)" *Id.*

The spacing statute requires that a drilling order "specify the location of the well [or wells] in terms of distance from drilling unit boundaries and other wells" but does not set any minimum distances. Utah Code § 40-6-6(5)(d). There are also no administrative rules addressing the required distances for a set back from the boundary for a drilling unit. Arguably the Board is free to establish any set back distance or provide any additional conditions on the location of a well in a drilling unit.

A drilling unit is required to be an estimated area that is no "smaller than the maximum area that can be efficiently and economically drained by one well." Utah Code § 40-6-6(3). A drilling unit may be, and often is, larger than such an estimated area in an attempt to err on the side of caution (additional wells can always be drilled, but once production is shared it is hard to reverse) or for other reasons (drilling units allow control of development and pooling). Therefore, although a well location would be expected to be near the center of the perfectly sized drilling unit, a setback may be needed, as an added precaution, to protect correlative rights of the owners of the adjoining mineral estate.

The statute governing the establishment of a drilling unit was modified in the 2014-15 legislative session to provide:

> (6) The board may establish a drilling unit and concurrently authorize the drilling of more than one well in a drilling unit if the board finds that:
>
> (a) engineering or geologic characteristics justify the drilling of more than one well in that drilling unit; and
>
> (b) the drilling of more than one well in the drilling unit will not result in waste. Utah Code § 40-6-6(6)

This change in the statute was made to clarify that the Board may, in certain cases, simultaneously establish a drilling unit and permit drilling of more than one well in the drilling unit. One reason for this change was the challenge of establishing a drilling unit for horizontal wells. The general well location rule allows drilling of one horizontal well in a 640-acre section without spacing. As such sectional spacing was seen as the default size for a horizontal well. However, it was also generally acknowledged that more than one horizontal well would be needed to properly drain a section. Accordingly, the Board had begun to approve drilling units for horizontal wells that allowed more than one well per section to accommodate a drilling plan of the operator. The statutory change explicitly authorized this practice subject to the two conditions: (a) the geologic and engineering characteristics of the lands and proposed development for the drilling unit justify more than one well; and (b) the drilling of more than one well will not result in waste.

II. Crescent Point's Request for Agency Action.

A. Summary of the Request.

1. Number of wells and setbacks.

Crescent Point's Request for Agency Action (RAA) asks the Board to establish 640- and 1280-acre drilling units for the production of oil and gas from the Green River Formation which consists of approximately 1750 vertical feet of strata. The RAA purports to cover a total of 49 sections of land: 49 sections to be 640-acre drilling units; 36 of which may also at some point be developed as eighteen 1280-acre drilling units. However, the exhibits show that there are only 45 sections included in the RAA with 34 of those potentially developed as seveteen 1280 drilling units. Whether a drilling unit will be a 640-acre drilling unit or a 1280-acre unit, depends on whether and when Crescent Point chooses to drill a horizontal well and the size of the well. The RAA asks the Board to simultaneously authorize up to 12 horizontal wells in each drilling unit and 16 vertical wells per section for each drilling unit (32 vertical wells per 1280-acre drilling unit).

The RAA asks that vertical wells be located at the center of surveyed 40-acre quarter-quarter sections, with setback requirements from other wells and drilling unit boundaries that are consistent with the general well siting rule R649-3-2 (no closer than 920 feet from other vertical wells and no closer than 460 feet from drilling unit boundaries). Horizontal wells are to be set back 330 feet laterally from any other horizontal or vertical well bore and 100 feet vertically from another horizontal well bore. Setbacks from the drilling unit boundaries for horizontal wells are requested to be 330 feet from north or south boundaries and 560 feet from and east or west boundaries.

2. Delayed effective date of order for vertical wells.

Although the Request asks the Board to authorize the establishment of these drilling units and well densities and setbacks for any future vertical or horizontal wells, it asks that the order not be effective for sections with existing vertical wells until there is a horizontal well producing in paying quantities. Once a horizontal well is determined to be producing in paying quantities, the drilling unit will become effective as to those lands, and any existing vertical wells will be prospectively included in the 640- or 1280-acre spacing unit based

on the proportion of the acreage of the 40 acre well location to the acreage of the drilling unit.

It appears that this conditional and future effective spacing date, is only applicable to wells listed in the RAA as existing wells, and identified as "Vertical Wells." The RAA states that there are six existing "Vertical Wells" in the subject lands that would be subject to this conditional future spacing provision. However, two of the identified "Vertical Wells" are located outside of the land proposed for spacing. In addition, Exhibit K identifies eight existing vertical wells that are within the subject lands; i.e. it shows four vertical wells that are not identified as "Vertical Wells" in the RAA.

In addition, since there would be no drilling unit prior to a producing horizontal well, it is not clear if the RAA would allow additional vertical wells to be drilled according to the general well siting rule, and, if so, if this prospective spacing provision was intended to apply to such additional vertical wells drilled prior to a horizontal well.

Crescent Point needs to clarify what wells will be subject to the delayed effective date provision in the request. Also, the date of first production and amount of production for the existing wells is not included in the RAA or Exhibits and may be relevant to whether the RAA protects correlative rights.

3. Vacating of existing Spacing Orders and effect of delayed effective date of Order on sharing of production from existing horizontal wells.

This RAA asks the Board to vacate two existing spacing orders: 142-05 Order, and the 131-138 Order with respect to the subject lands. The 142-05 Order allows up to two vertical wells per 80-acres drilling units. As of this date there have been no vertical wells drilled in the subject lands that are subject to the 142-05 Order. The 131-138 Order establishes two 640-acre drilling units and two 1280-acre drilling units and approves pilot projects for those lands allowing up to six wells in each drilling unit. The RAA states that there have been four horizontal wells drilled in the lands subject to the 131-138 Order, but it appears that one of those wells (Kendall State 14-4-3 -1E-WS Well API 43-047-53114) was not drilled in lands subject to either the 131-138 Order or the lands subject to this RAA. Of the other three wells, all are 640-acre horizontal wells and none are 1280-acre wells.

The vacating of these orders and establishment of new drilling units as requested will result in a change in the distribution of proceeds from the three affected horizontal wells since they are all located in lands requested to be 1280-acre drilling units. A similar problem may occur for lands that are potential 1280-acre drilling units if one of the sections in a possible 1280 has one or more 640-acre horizontal wells drilled and the other section has no horizontal wells.

The RAA only asks for an adjustment in production for existing vertical wells, but the exhibits also show calculations for adjustments in distributions of production when there are existing 640-acre horizontal wells in an area to be spaced as a 1280-acre drilling unit. Crescent Point may intend that the Order adjust production from existing horizontal wells on the same model as requested for existing vertical wells; i.e., upon production in paying quantities from a 1280-acre horizontal well. If the Board were to allow the RAA to be modified to conform to the exhibits, then when a 1280 acre horizontal well is drilled and producing in paying quantities, the production from the existing well would be adjusted prospectively in proportion to the acreage included in the payout from the existing wells in the acreage of the new drilling unit; essentially reduced by half for the remainder of the production, but then sharing in the 1280-acre production.

The RAA proposes to make the adjustments prospectively without adjustment for the degree to which the owners of mineral rights in the undrilled half of a 1280-acre drilling unit are adversely affected by not sharing in production form the drilled lands while being required to share production from his half with the owners of those lands without any offsetting compensation. This loss of shared production could be significant especially for owners in Section 10, T 4S, R 2E which contains two 640-acre wells and where the existing Order is proposed to be vacated and to become a 1280-acre drilling unit. No data is provided regarding the production from the existing horizontal wells. As noted above, a similar problem may occur after the order is approved for lands that are potential 1280-acre drilling units if one of the sections in a possible 1280 has 640-acre horizontal wells drilled and the other section has none.

4. Horizontal well locations and time allowed for drilling of wells.

The RAA does not ask the Board to limit horizontal well production to any particular geologic formation or to limit production of vertical wells from geologic formations that may be developed by horizontal wells. The horizontal wells drilled pursuant to the 131-138 Order and other horizontal drilling in the

subject lands shown on Exhibit K targeted different formations including the Uteland Butte, Black Shale, Douglas Creek, and Castle Peak formations. The RAA does not limit the either the time for drilling of wells or the drilling of horizontal wells to any formations. Production data for these wells is not included in the submitted information.

B. Analysis of the Request

1. Consistency with governing law.

a. Geologic and engineering evidence is required to support multiple wells development.

The RAA goes beyond the usual practices of the Board when establishing drilling units by seeking to allow a variety of wells at the operator's discretion. Prior orders such as the 131-138 have allowed for both 640 and 1280-acre drilling units but primarily as pilot projects to explore the most productive development plan. As noted, Utah Code § 40-6-6 was recently modified to allow the Board to approve infill drilling at the same time it establishes a drilling unit, but it did not explicitly provide for a field-wide grant of discretion to an operator to determine how to develop land for oil and gas production. The law still requires a finding based on the evidence that the drilling unit and well locations or density will be of such a size and locations as to efficiently and economically drain a common source of supply. Crescent Point needs to provide an explanation of its reasons for seeking both 640-acre drilling units and 1280-acre units for the same geologic conditions and/or for allowing the drilling of vertical wells into the same pool.

b. Protection of correlative rights must be demonstrated.

The RAA also is problematic since it allows for existing vertical wells and horizontal wells to continue to produce from lands to be spaced without sharing production, but then requires that all owners share in production of future wells. It is not clear if the owners of new vertical wells would be required to share production prior to drilling of a horizontal well. The potential inequities that may result between owners of the oil and gas depending on when and how the same pool is developed may not equally protect the correlative rights of all the owners. Whether this inequality is acceptable because of other factors such as the lack of development in the absence of such an order is for the Board to determine. The fact that others have not objected does not remove the question entirely from the Board's consideration.

Crescent Point also does not propose to drill horizontal wells in different strata or formations from those to be developed by vertical wells. This is presented by Crescent Point as a random choice. The statute requires that there be "engineering or geologic characteristics [to] justify the drilling of more than one well in that drilling unit" and that it not "result in waste". Utah Code § 40-6-6(6). This applies to any drilling unit, but is particularly so for a large area with very little prior oil and gas development. There is little evidence in the RAA based on production from within the area to be spaced to support the size of drilling units for horizontal wells. The results of pilot projects in the prior R131-138 Order should be evaluated. As presented there is little evidence that there is a plan that will work, and there are no requirements or assurances that a plan will be followed.

Crescent Point candidly admits that the RAA and its long range plan for development are needed to obtain a capital commitment for the area, and to establish a structural support plan; but such factors are not explicitly allowed by Utah's law authorizing the Board to apportion production and governing location of wells. Although the operator can make a persuasive case for the advantages to itself and others that may result from a long term field-wide plan as proposed, they must also provide evidence sufficient to demonstrate that correlative rights are protected or that the drilling units requested will be economically and efficiently drained by the well spacing as proposed. The RAA admits by its very inconsistency to the fact Crescent Point either does not know or is not asking for the most effective sized drilling unit for all of these lands.

b. The request must prevent waste.

An additional concern is the size of the land included in the petition and the lack of any time constraints on the drilling of horizontal wells. Mineral owners in a section, or in two sections, will have no predicable way to anticipate the amount of production that may be available to repay the costs of drilling a vertical well (if new unspaced vertical wells are permitted -this not clear). This could inhibit vertical well development by others and rather than encourage and maximize the production of oil and gas production, reduce it. Similarly, if there is not a limit on drilling new vertical wells, this may inadvertently preclude drilling future horizontal wells. Either way the RAA may not maximize production and may not prevent waste. The Operator needs to address these questions.

2. *Needed Clarifications and Amendments of the Request.*

The RAA is in need of clarification or correction of the following matters:

a. Legal description of the subject lands.

Crescent Point's RAA includes lands that were apparently included by error. At Crescent Point's request these lands were omitted from the Notice of Hearing for this cause but the RAA was not amended. The correct action would have been to seek to amend the RAA eliminating the lands that are not intended to be included.

b. Confirmation of addresses in certificate of service.

The certificate of service filed with the RAA contains many patently absurd addresses such as those without streets or street numbers, or with the same names at consecutively increasing zip codes. These apparent errors suggest that problems occurred in formatting or that there were omissions of portions of the addresses such that there could be no proper notice given by the purported mailing. These errors need to be addressed.

c. Lease boundaries and ownership information.

The exhibits filed with the RAA do not include evidence showing the individual mineral ownerships and lease boundaries sufficient to determine how the proposed development will affect different mineral owners within the proposed drilling units. If necessary, Crescent point may request that this information be kept confidential, but it should be available to the Division and Board as part of the determination as to whether the RAA will protect correlative rights.

d. Clarify application of delayed effective date provision.

The RAA as drafted is not clear since it asks for the Board to establish 640- or 1280-acre drilling units for all of the optional 1280-acres lands, but also asks that the Board order that the drilling units not be effective until production in paying quantities is achieved. It is not clear how the effective date will apply. If there is no drilling unit then new vertical wells could be drilled under the general well siting rule. If this is to be precluded, the reasons and justification or conditions should be clear.

e. Address inconsistency of paying quantities requirement with Utah law.

Making a drilling unit effective only upon a determination that a well is capable of production in paying quantities fails to accommodate the distribution

of production to a drilling unit owner which is required by Utah law regardless of the profitability of the well.

f. Address how the Division can approve APD's for wells prior to spacing being effective.

It is not clear how a 1280-acre well could be authorized absent a drilling unit being established, and if one is established, then all of the owners in the sections have a right to share in production. This inconsistency should be addressed and resolved if possible.

g. Address how force pooling will apply to lands.

Finally, the RAA does not anticipate how owners may be forced pooled if spacing does not become effective prior to production in paying quantities. Even if it is not effective until there is some production, this conditional spacing may preclude forced pooling prior to knowing if a well is producing which may be prejudicial to leased parties. At the very least the RAA should be clarified with a view to addressing this issue.

III. CONCLUSION

In order to approve the spacing as requested, the Board must find that Crescent Point has demonstrated that the geologic and engineering characteristics of the lands and proposed development plan justify the number and types of wells allowed, and that the RAA will protect correlative rights and not result in waste. This unusual request asks the Board to give the operator a greater degree of discretion over the type of wells and timing of development. This broad request raises questions about whether the RAA satisfies the statutory requirements and how the Order might be drafted to assure that the statutory requirements are met.

In addition there are specific inconsistencies with law or within the RAA itself that need to be addressed and corrected or clarified either at the hearing or in an amended RAA. If approved, the Board needs to be clear in its Order on the method and effect of the relief as it will be applied.